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ABSTRACT

A study of three first grade teachers, who were interviewed and observed in the classroom setting, demonstrates a link between teachers' plans for action that they have developed over years of teaching and their routine management of students during reading. Both management and instructional goals, embedded in teacher beliefs about learning and child development, provide the rationale for making decisions based on culturally specific criteria. The findings, which include tabulated data, caution against assuming that teachers are not considering goals and objectives when planning and carrying out classroom activities, though they tend not to mention them spontaneously to interviewers. (Author/JD)

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A Cognitive Ethnography and Quantification of First Grade Teachers' Plans for Managing Students

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Abstract

Pittman, S. I. A Cognitive Ethnography and Quantification of Teachers' Plans for Managing Students

A technique for testing qualitative data demonstrates a link between teachers' plans for action that they have developed over years of teaching and their routine management of students during reading. Both managemnt and instructional goals, embedded in teacher beliefs about learning and child development, provide the rationale for making decisions based on culturally specific criteria. The findings caution against assuming that teachers are not considering goals and objectives when planning and carrying out classroom activities, though they tend not to mention them spontaneously to interviewers.

DESCRIPTORS: TEACHER COGNITIONS; CLASSROOM INTERACTION; STUDENT ATTRIBUTES; CLASSROOM MANAGEMENT; TEACHER BELIEFS; TEACHER PLANNING

Introduction

Descriptions of how effective teachers accomplish classroom management are usually incomplete because they fail to include the plans by which teachers establish and maintain management systems. The result of such an omission is often a tendency to describe classroom management in terms of teacher behaviors rather than as cognitive processes that translate problem solving into motor activity. Although such an emphasis is found in the analysis of most aspects of classroom management, the present study only focuses on obtaining an accurate representation of first-grade teachers' plans for selecting management strategies during reading seatwork.

Several studies of teacher cognition have identified recurring factors teachers consider when thinking about students and their behavior (Brophy & Rohrkemper 1981; Borko 1978; Cone 1978; MacKay & Marland 1978). The factors include objectives to be attained, i.e. long-term solutions as compared with short-term solutions for behavior problems, criteria considered relevant to taking action, and actions taken. Furthermore, researchers continue to discover that experienced teachers' management of students is often characterized by well-established routines (e. g. Brophy 1983). In an early definitive study Kounin (1970) discovered techniques such as "withitness" and "overlappingness" that are now used in intervention studies to improve the practice of teaching (Evertson & Emmer 1982; Freiberg 1983; Weber 1982). Little is known, however, about how these routines are linked to teachers' plans and planning for classroom management (Emmer &

Evertson, 1981).

The theoretical literature gives a number of ways of looking at plans. Piaget (1926) theorizes plans to be derived from abstract knowledge structures called schemes, which people employ to generalize an action to other contexts similar in nature. Randall (in press) proposes that planning is a type of problem solving and plans are sequences of action categories that may become routine. Plans serve to specify the range of alternatives available for achieving an end (Schank & Ablelson 1977), and identify what conditions or criteria are routinely considered when selecting among these alternatives (Randall 1977). Here a plan is considered to be the mental relationship between the criteria teachers consider and the strategies they routinely select to achieve a goal.

Gaining an understanding of teachers' management plans requires a research methodology designed to discover, model, and verify those plans. Toward that end, ethnography as a research methodology has the advantage over other types of research by providing the tools for focusing on natural settings such as the classroom, using participants' constructs to structure the research, and describing in depth the participants' perspective (LeCompt & Goetz 1982). The primary disadvantage of ethnography is that the data are difficult to verify.

In dealing with the threat to validity, cognitive ethnographers have developed methods of systematic, controlled elicitation and formal analytical procedures. The primary

strategy involves alternating between direct observation and systematic indirect questioning to discover logically related principles used by individuals and groups to order relevant phenomena. Since the 1960's, a number of intensive field studies have identified the logical arrangement of semantic domains by which people organize their worlds, solve problems and make decisions (e. g. Tyler 1969; Casson 1981). Many of these studies have produced information processing models of cultural planning and decision making that were verifiable. See, for example, the work of Geoghegan (1969) in predicting the selection of living arrangements by Philippine Samal; Gladwin (1976) in predicting the uses of fertilizer by Mexican farmers; Randall (1977) in predicting the selection of Samal fishing techniques; and Young (1980) in predicting the selection of medical treatments by Tarascan villagers. The models incorporate a wide range of variables and describe the underlying structure by which persons routinely consider such variables and apply them in dynamic, naturalistic settings. When represented in a model that is reasonable and logical, the cognitive process can be validated quantitatively. Thus the link between purposive thought and action becomes demonstrable.

Purpose

The purpose of the present study was to discover the characteristics of teachers' management plans, e. g. the relationship between the criteria and strategies routinely selected to achieve certain effects, and to depict the plan in an information processing model that could be validated.

Method

Subjects

Principals and first-grade teachers at three schools were asked to nominate an effective manager, e. g. a teacher at their school known to "produce high levels of student involvement in classroom activities, minimal amounts of student behaviors that interfere with the teacher's or other students' work, and efficient use of instructional time (Emmer & Evertson, 1981)." The three teachers, who became known as Mrs. Fisher (Anglo-American), Mrs. Ramirez (Mexican-American), and Mrs. Farris (Black-American), taught at different schools located in low-income/blue collar neighborhoods of a large urban school district located in the South Central United States. The percentages of the student population receiving free lunches indicate that some socio-economic differences exist between Mrs. Farris' school (87.5%), Mrs. Ramirez' school (75.8%), and Mrs. Fisher's school (41.5%). At Mrs. Fisher's school, 70.9% of the students were at or above grade level (Iowa Test of Basic Skills, 1978) while the percentages were 64.5% and 64.2% at Mrs. Farris' and Mrs. Ramirez' schools, respectively.

Mrs. Fisher's class of 28 first-graders was composed of a cross-section of ethnicity (18 Anglos; 3 Hispanics; 4 Blacks; 2 Vietnamese; & 1 East Indian); and ability (20% scored high on the Metropolitan, 55% average, and 25% low). The students had been systematically assigned to classrooms by a committee of first-grade teachers in order to provide each teacher with

equal numbers of members of the various ethnic groups, students of varying ability (who were to be assigned to one of three reading groups), students who were repeating first grade, and students who had behavior problems in kindergarten. (However, one first-grade class was designated as a readiness class for students who had scored low on the Metropolitan and probably caused the other classes to have fewer lower ability students.)

Mrs. Ramirez' class of 27 students was composed of 16 Hispanics, 10 Anglos, and 1 Chinese while Mrs. Farris' class of 20 students was made up of 19 Blacks and 1 Cambodian. In both schools, the students were assigned by the principals to the various first-grade classes in order to provide each classroom with students of varying ability. However, there is some evidence that students' and teachers' personalities were also considered at Mrs. Farris' school. For example, Hispanic students were not assigned to Mrs. Farris' room because she was considered too strict by those parents.

In each class, students were assigned by the teacher to one of three reading groups with Group I made up of higher ability students and Group III made up of students who had not done well on the Metropolitan. As one principal explained, students assigned to Group III moved more slowly through the reading program and were frequently retained. Eight of the 12 students in Mrs. Ramirez' Group III were retained at the end of the study, while 3 of 6 students in Mrs. Fisher's Group III and 6 of the 8 students in Mrs. Farris' Group III were retained. (The two remaining students had already been retained once.)

Though data regarding the ability of the students was not collected systematically, indications are that Mrs. Farris had more slow students than Mrs. Ramirez and Mrs. Ramirez had more slow students than did Mrs. Fisher. In Mrs. Farris' class, 17 left for special reading classes, all of whom had scored less than 50% on the Metropolitan, while in Mrs. Fisher's class, 1 student left for speech class, 1 for bi-lingual instruction and 2 for reading instruction. In Mrs. Ramirez' class, one student left for bi-lingual instuction, and no one left for reading instruction, though two had been referred for testing by Mrs. Ramirez.

Mrs. Ramirez spent equal amounts of time with each of the groups (25-30 minutes) as did Mrs. Farris (15-20 minutes). Mrs. Farris usually had morning and afternoon sessions while Mrs. Ramirez only occasionally had reading in the afternoon. Mrs. Fisher routinely conducted reading for 90 minutes at the beginning of the school day. Generally, Group I and II had reading for 30 minute periods while the students in Group III had one short session of about 15 minutes and then received one-to-one assistance as they finished each part of their assignment. Mrs. Fisher reported that as the year progressed she moved as many students as possible into Groups I and II. Her policy was to keep as few students as possible in Group III and individalize their program if necessary. She often had additional reading instruction in the afternoon and routinely used sixth graders to listen to oral reading and check written work such as the SRA kits. No patterns of differential

treatment in terms of ethnicity or sex was detected but Table 1 shows the ethnic composition of the reading groups in each of the three classrooms during the month of February.

Insert Table 1 about here

Procedure

Mrs. Fisher was observed and interviewed during a 5-month period in the spring of 1982, and the other two teachers were studied October through April of 1983. Twenty-five hours of interviewing and 30 hours of observation were conducted with Mrs. Fisher approximately on a bi-weekly basis. Thirty hours of interviewing and 70 hours of bi-weekly observations were conducted with each of the other two teachers. Interviews were audio-taped and observations were conducted with notepad and pen. General ethnographic techniques, including "grand tour" questions ("Could you describe a typical school day?") and wide-ranging observations of the school were used initially (Spradley 1979). After a general understanding of the school day was gained, I focused on teacher interaction with students engaged in seatwork activities while the teacher was involved in small-group reading instruction. The focus set reasonable boundaries to the study while emphasizing an aspect of schooling that occupied a large portion of the first-grade curriculum and that appeared to be characterized by well-established teacher routines.

Probably the most difficult objective of the study was the identification of the criteria or conditions that governed the teachers' selections of management strategies. It was

necessary to first discover categories of teacher knowledge about preferred management strategies and both desired and undesired student behaviors. A series of experiments with the data produced hypotheses about the criteria. The hypotheses were tested against the routine selection behavior of the teachers and adjusted as necessary to reflect the cognitive processes that were translating the teachers' problem solving into motor activity. Using the language of each teacher, the hypotheses in the form of descriptive statements were charted in information processing models. The models were then tested on data not used in the formulation of the models.

Results and Discussion

Rationale for Classroom Management and Reading

Before describing the development of the models, however, it is necessary to discuss the teachers' goals for managment and reading. Information about the teachers' purposes in management and reading was drawn from interviews throughout the study, but was obtained primarily from the teachers' responses to "why" questions.

Mrs. Farris emphasized the importance of the time she spent with her students in the reading circle, where she stressed oral reading skills as well as comprehension. She frequently expressed her desire that the students should always do their very best and required the students at their desks to be quietly engaged with their assignment, which usually consisted of boardwork and several dittoed sheets. She did not want to be disturbed while teaching so talking was discouraged,

and non-verbal student interactions and too frequent trips to the wastebasket were usually desisted. The students were told they could raise their hands if they had a question; but the only interruptions to her teaching I observed were related to use of the restroom, and even more rarely, to student appeals to the teacher to settle disputes concerning the borrowing and lending of supplies.

Mrs. Ramirez' reading goal was to teach all her students to read by the end of the year. Toward that end, she emphasized the importance of the skills taught during the reading circle, and the daily completion of the three or four dittoed sheets and boardwork. Her management goals included teaching her students to show respect and to have a group spirit, by which she meant cooperating with the teacher and supporting classmates. She promoted these goals by treating the students with respect, which included kindly listening to them and causing them to like their teacher. She also wanted them to be able to talk to each other, because she believed that talking was related to learning to read and that it was possible to do two things at one time. She, therefore, permitted low talking during reading seatwork.

Students involved in seatwork often approached Mrs. Ramirez to ask questions when she was teaching in the reading circle. Though some questions could have waited, Mrs. Ramirez felt sorry for the students and helped them, seldom reprimanding those who came to her, except perhaps a tattler who did not always tell the truth. The low-voiced, brief

interactions were usually done with eye contact, frequent smiles and sometimes touches. This mixing of the affective with the instrumental has been noted elsewhere in studies of Mexican-American teachers and seems to denote a management style that is culturally different from non-Hispanics (Erickson, et. al. 1983; Ramirez & Casteneda 1979) but similar to native Americans (Philips 1972; Erickson & Mohatt 1982). The research cautions against an over-emphasis on time-on-task which tends to deemphasize cultural expressions of affectivity and leads to discontinuities between home and school.

Mrs. Fisher's primary reading goal was the creation of willing and independent readers. To accomplish this goal, she also emphasized the importance of time spent in the reading circle; but she had for seatwork a collection of materials of increasing difficulty that the students had to work on in a fixed order, some of which had to be completed daily, such as boardwork and workbook assignments. Her management goal was to cause the students to participate as fully as possible in the classroom activities. To accomplish this, Mrs. Fisher first motivated students to want to be part of the class, especially early in the school year. She also wanted the students to practice good citizenship, self-control skills and work-study skills. Students could come and ask questions during transitions between reading groups but only if the quesions were "necessary," which meant they could not get help from a group leader (the best reader in a group) before proceeding with assigned work.

The three teachers had strategies for accomplishing their goals that included training the students early in the year, motivating them, causing them to complete their work, etc. Though discussion of those categories of prevention strategies is beyond the limits of this paper, the findings support the importance of proactive management and indicate that it is possible for a teacher to use clearly defined and integrated goals to establish a plan of preventive management by which students learn how to participate in culturally appropriate ways in the learning process. Indications are that an effective management plan provides that desired student behaviors be identified, taught, and evaluated using much the same process by which instructional concepts are taught. The teachers' rationales for classroom management coincide with Weber's (1982) recommendation that classroom teachers establish management objectives and identify desirable classroom conditions to be encouraged.

The rationales, each unique, reflected the values of teachers and resulted in differing effects on the participation structures of the classroom, e. g. who can say what, when and to whom (Cazden in press). Little student interaction in the Farris classroom was observed, while in the Ramirez classroom, the atmosphere was friendlier as much interaction occurred among the students and teacher. In the Fisher classroom the atmosphere was business-like, yet relaxed with interaction among the students and the teacher occurring more freely than in the Farris classroom but under more

limiting conditions than in the Ramirez classroom.

Criteria for selection routines

To elicit routine selection criteria from the teahers, questions made use of the word usually. First, a list of off-task behaviors that the teachers routinely encountered in the classroom was formulated by asking, "What do students usually do when they are off-task?" Characteristics of these behaviors were determined by asking the teachers to identify and describe off-task behaviors that occurred during a specific observation. In this way, I developed an understanding of what student actions the teachers described as "sneaky," "not sitting up straight," "copying," etc.

In a card sorting exercise, the teachers ranked the off-task behaviors according to the degree of seriousness. They then grouped them and assigned names to the groups, if they had names. Mrs. Fisher and Mrs. Farish, both of whom had more than 20 years classroom experience, accomplished both tasks easily, suggesting that they made frequent use of this category of knowledge. Mrs. Ramirez, who had been teaching first grade for five years, took longer to complete the card sorting and did not have names readily available for the groupings.

Table 2 shows the rankings of some of the misbehaviors identified in each of the classrooms. Mrs. Ramirez explained that the behaviors were ranked according to the extent they presented a distraction to others (first criterion). For example, loud talking was more serious than not having a pencil

because it was rude and it disturbed others, including the teacher. Mrs. Ramirez also explained that some behaviors became more serious if someone "did it all the time," in contrast to isolated occurrences which were considered less serious (second criterion). Types of misbehavior became the third criterion since some behaviors such as questions were treated differently from tattling though they were grouped together.

Insert Table 2 about here

Mrs. Farris had two major categories for misbehaviors, "breaking class rules" and "not doing assignments right." The first category had three groupings which corresponded somewhat to Mrs. Ramirez'. The behaviors were ranked according to the extent that they disturbed the teacher and interfered with her time in the reading circle (first criterion). In the second category, the behaviors were ranked according to the extent they caused the students to get low grades in reading (second criterion). A third criterion, "keeps on doing it" meant that repeated behaviors were more serious than behaviors that stopped after the first warning. Similar to the third Ramirez criterion, types of behavior were also listed as another criterion because tattling was treated differently from other "worst" behaviors.

Mrs. Fisher considered "not-tolerated-ever" behaviors, to be worse than the "very serious," and the "very serious" to be worse than the "serious" and "minor" off-task behaviors. She explained that the more disruptive and intentional an

off-task behavior, the worse she considered it (first criterion). Two additional criteria were identified, repetition of misbehavior and whether or not the student was improving. If a student who was improving regressed momentarily, the teacher ignored the behavior. A fourth criterion became types of misbehavior when it was discovered that tattling was treated differently from other behaviors, at least initially.

For Mrs. Fisher, two other criteria were discovered at a later time after trust had been established. Mrs. Fisher treated her students differentially, based on her notions of "personality" and "levels of development." Mrs. Fisher's intention, and the observable result, was more structure and more stingently applied consequences for the more capable, boisterous students and more freedom of movement and less stringently applied consequences for the less capable and/or shy students.

Individual differences occurred in the lists of the teachers. Mrs. Farris, who kept her room very quiet, considered the rolling of a pencil down the desk a problem; Mrs. Fisher thought using foul language was not to be tolerated and needed to be in her list; and Mrs. Ramirez, who encouraged student cooperation, was concerned about students who bullied others. However, there were important similarities. The teachers tended to rank the behaviors for seriousness according to the degree to which they thought the behaviors interfered with the teaching-learning process, and the teachers believed

that a repeated action should be considered more serious than an isolated occurrence.

Management Strategies

To discover the teachers' ways of dealing with undesired student behaviors, I followed a cycle of observations and controlled elicitation in which I collected examples of strategies each teacher used and discussed them with her. In addition, I used a pattern question, "What do you usually do when a student ___ (gets out of desk, talks loud, etc.)? After categories of strategies were developed, then pattern questions such as "When do you usually do this?" and "Why do you do that?" were used to systematically identify how, when and under what conditions the strategies were routinely selected. As shown in Figure 3, it became clear that the teachers had categories of strategies preferentially ordered to deal with increasingly serious behaviors. However, there were important differences.

Insert Table 3 about here

Mrs. Farris tended to give fewer warnings and corrected students more quickly than the other two teachers and her transitions from one category to another were clearly outlined. For example, Mrs. Farris' rule of thumb for those who broke class rules was, "After three times, I get them." In other words, after one or two warnings, the students were corrected. If they did it again, they were spanked, unless the teacher did not feel well that day (blood pressure up) or the weather was warm. Mrs. Farris believed in the tradition of corporal

punishment as a means of getting students "to do their very best." Her students' parents subscribed to this belief as did the principal and the school board. There is, of course, another side to this as noted by Blau (1981). She discovered a correlation between traditional, fundamentalist socialization patterns, including corporal punishment, and low IQ scores, exclusive of race. However, though there are those who would disagree with the practice of corporal punishment, it is a cultural fact that some orders of discipline, as well as loving and caring, look different.

Of particular interest is the strategy Mrs. Farris described as "playing." In situations related to assignments, Mrs. Farris would often voice threats that, to the uninitiated, sounded like Doomsday. For example, as one student left the room for a reading contest in the principal's office, Mrs. Farris said, "If you don't win, I'm going to pull your nose 'til it thunders." The student laughed and said her father had told her the same thing that morning. The end result of the "playing" was to emphasize to the student the importance of school work and represents a type of culturally specific teacher register or teacher talk (e. g. Erickson, et. al. 1983). Ward (1973) noted this linguistic phenonmenon, which she called "play threats," in her field studies in Central Louisiana, where Mrs. Farris grew up. In the small Black community Ward studied, parents would, on occasion, affectionately tell their children that if they didn't mind, they were going to "kill them." See also similar findings by

Heath (1982) who studied child rearing practices among working-class Blacks in a Southeastern United States community.

Mrs. Ramirez either had not developed definite routines for transitions between categories, or chose not to. A student might receive any number of warnings over a period of time before she went to the next step. However, of particular interest is the fact that warnings could be either "mild" or "firm." Mild warnings often took the form of hinting. For example, "I see some boys who need to turn around." Firm warnings were delivered in a firm tone of voice, sometimes barely distinquishable from mild warnings, but often couched in sarcasm, for example, "Are you waiting for your guardian angel to come do your work?" This type of warning was usually directed at students "who did it all the time." Most of the students who belonged to this category were the slowest members of Group III, who talked the loudest and often did not finish their work.

In Mrs. Fisher's thinking, management strategies were of three types, "training," "correcting," and "off-the-board." For the serious to minor off-task behaviors, such as daydreaming, she used training strategies. She preferentially ordered them according to her objective of training students to exercise self-control. She preferred to omit taking action unless a student needed reminding. If a reminder was necessary, she preferred to warn the student without publicly singling him/her out, often using a group alert, such as

clearing the throat and looking in the direction of the student. If that did not work, she spoke directly to the student.

Mrs. Fisher's basic correcting strategy for extinquishing undesirable behaviors was to have students write their name on the board (sign-ins) after they had failed to heed a few warnings (training strategies). "Off-the-board strategies" were reserved for cases in which the student had either ceased taking sign-ins seriously or had a "bad habit," such as an "untrained" student who continued to disrupt and perform "below level (of ability)." The teacher solicited the cooperation of the parent(s), and then desisted every expression of the behavior that had been targeted, such as "blurting out." Students were placed under considerable pressure to change their behavior and tended to become more aware of the consequences of their behavior, primarily because Mrs. Fisher made it more rewarding to control the behavior than to express it. In the cases I observed, usually within a two-week period the targeted behavior was extinquished to the extent that the students were completing their work.

Similar to Mrs. Farris, Mrs. Fisher had a rule of thumb for moving from selecting training to correcting strategies. "Three's the charm." After two warnings, the student was usually corrected. Variations on this rule were derived from the criteria of personality and level of development resulting in less capable and shy students being given the benefit of a doubt.

Strategies for Tattling . The teachers' routine treatment of various expressions of tattling was different from their reaction to other off-task behaviors, probably because the student approached the teacher and engaged her in an activity that wasted time. Strategies to extinquish tattling included ignoring, telling the student to mind his/her own business, etc. Consequences escalated if a student persisted or lied. However, the teachers wanted the students to report certain types of actions, such as bullying, and it may be that the students themselves were unable to always determine what should be reported by the differential reactions to their complaints. The literature offers no insight into how other teachers deal with tattling, but it seems reasonable to suggest that teachers be encouraged to develop a plan for dealing with isolated, repeated as well as aggravated tattles (lying to hurt someone).

The group alert. The teachers dealt with group problems similarly to problems with individual students, at least initially. If a number of students were off-task during seatwork, the teachers routinely selected a group alert. For example, Mrs. Farris might say, "Little folk, you don't need to talk to draw a turkey." Sometimes, if the talking did not totally cease, she might say, "I still hear talking." These group alerts were most often observed at the beginning of the reading period and were designed to alert the group to the fact that they needed to be aware of what they were doing (or not doing) and correct it before the teacher focused on individual

offenders.

In summarizing what is known about the management strategies, the three teacher had categories of strategies that progressed from mild reminders to more severe corrections. The strategies were logically related to the ordering of the misbehaviors. In other words, mild reminders were selected for mild misbehaviors and corrections were applied to the more serious offenses. The two more experienced teachers had more clearly defined "rules" for moving from mild reminders to corrections than did the less experienced teacher, but it is unclear if Mrs. Ramirez' more lenient policy is derived from having only taught five years, or perhaps from a culturally-derived reluctance to appear overly strict. Mrs. Farris reported that the Hispanic parents at her school requested other first-grade teachers because she was perceived as being "too strict."

Refining Routine Strategy Selections

To refine the data and test the fit between criteria and strategies, 20-25 vignettes were formulated based on actual situations observed in each classroom. The vignettes varied systematically according to the criteria and categories of behavior discovered for each teacher. Each teacher was asked to respond to the vignettes and elaborate on any criteria she considered when selecting a strategy. The data were used to formulate statements describing the strategy selection routines practiced by each teacher. Figures 4, 5, and 6 show that there are a total of 8 statements or routines for Mrs. Ramirez, 10

statements for Mrs. Farris, and 12 for Mrs. Fisher. Taken together, the statements represent the management plan of each teacher durng reading.

Insert Tables 4, 5, and 6 about here

The statements identify situational items that are potentially relevant to making a choice between alternative strategies. It, therefore, becomes possible to express the statements in an information processing model that illustrates the logical order of the management plan; and, at the same time, it describes how I believe these teachers select management strategies during seatwork.

To illustrate the routine strategy selection process, an example is taken from observation notes in Mrs. Ramirez's room and traced through the model.

Mrs. Ramirez is instructing Group I at the reading table when she notices that Joey, a member of Group III, is getting loud. "Joey, will you please get busy? "I don't know what excuse you'll give me next." Joey ducks his head. A few minutes later, Alicia, a member of Group II, gets up and goes to the next row to talk to someone. Mrs. Ramirez stops and says softly, smiling, "Alicia-a-a." Alicia hurries back to her desk.

In this example, both students were acting in ways defined by the teacher as distracting, e. g. loud talking and out-of-seat. One is given a firm, sarcastic warning while another received a mild warning that was similar to a gentle reminder. To understand what is happening, we need to know

that Joey belongs to the "does it all the time" category, while Alicia does not. Mrs. Ramirez' selection process for these two cases can be traced through the model shown in Figure 1.

Insert Figure 1 about here

Begin: What is the behavior? It is not "worst" behavior and it is not "defiant" behavior. Is it a tattle? No. Is it a question? No, it is distracting behavior other than tattling. Does the student do it all the time? Yes for Joey who received the firm warning (Routine #7); and no for Alicia who received the mild warning (Routine #5).

Figure 2 depicts the model for Mrs. Farris' plan and Figure 3 represents Mrs. Fisher's plan. The three models focus first on student misbehaviors that routinely appeared during reading seatwork activities. At the next level of contrast, the teacher considers the number of warnings a student has received and other student characteristics, such as personality and level of development.

Insert Figure 2 and 3 about here

Testing the Ramirez and Farris Models

At the end of April, during regularly scheduled observations, I tested the Ramirez and Farris models during five reading sessions, conducting debriefing sessions with each teacher as was customary. For Mrs. Ramirez, of 134 observed selections of management strategies (cases), 5 were expected but were not observed, resulting in a prediction rate of 96%. For Mrs. Farris, of 45 observed selections of management strategies or cases, one was expected but not observed,

resulting in a prediction rate of 98%. (A prediction error was defined as a selection that is observed but not expected, while an accurate prediction is both expected and observed.)

I was interested in determining how the selection rate for the April testing period compared with earlier in the year. Averages for types of strategies selected were derived from 60 hours of observation for both teachers. Overall, Mrs. Ramirez made three times as many selections as did Mrs. Farris and appeared to be spending more time managing her students during reading. Thirty-two percent of her selections were for interactions with (seatwork) students to answer questions, listen to personal communications, tattles, etc. Sixteen percent were for group alerts (warnings directed at several or more students), and 42% were for desists for individuals. In contrast, Mrs. Farris had 87.5% desists for individuals, and 12% for group alerts. Based on these averages, which were consistent with the five testing sessions, I predicted that during the second testing period, with two raters in the classroom, Mrs. Farris would have 9 selections and Mrs. Ramirez would have 27. Based on sources of errors during previous observations, I also predicted that if errors occurred, they would result from Mrs. Farris warning students instead of correcting them; and from Mrs. Ramirez selecting mild warnings instead of firm warnings.

Testing with a Second Rater

The models, left unchanged, were tested again with a second rater during one reading session in May. An

anthropologist unassociated with the study and trained in cognitive ethnography served as the second rater.

During the testing of the Farris model, 11 cases were observed with no errors. Inter-rater reliability was 94%. With the testing of the Ramirez model, we collected 50 cases with two errors, resulting in a prediction rate of 96%. Inter-rater reliability was 98%. Tables 7 and 8 show the itemization of the cases observed.

Insert Tables 7 and 8 about here

We had high rates of success with both models, but the testing of the Ramirez model deserves a closer look. The 50 cases were well above the 27 selections I had expected. And though this session compared similarly to two other observations logged immediately before and after the Christmas holidays, the students were not disruptive during the testing. Rather, it appeared to me that the teacher was reacting to the visitors by being over-solicitous. For example, 35% of the cases were interactions with (seatwork) students, which was above her average of 32% and less than 1% of the cases were group alerts, significantly less than the average of 16%. At the same time, the number of desists were on the average (42%) and selections were evenly distributed among 70% of the students.

Testing the Fisher Model

The Fisher model was tested in late September of the following school term. (The Fisher data was collected during the year preceding the Farris and Ramirez case studies.) Based

on Mrs. Fisher's explanations from the previous school term, I predicted that if errors occurred in the model, they would result from the selection of a training strategy when the selection of a correcting strategy was expected.

At the initial interview, which was conducted to determine the seating chart and the reading groups, Mrs. Fisher surprised me with a list of students, criteria (test scores) used to assign them to the three reading groups, and comments on the students' behavior. The comments included familiar terms such as "shy," and "boisterous" to describe the students. We used the list to discuss the students' characteristics in detail and why they had been assigned to each group. I then returned the next day to observe and practice identifying the students. (The ability level and ethnic makeup of the class were similar to the previous year, and the ethnic minorities were evenly distributed across the three reading groups.)

During the testing period, which occurred over a period of 3 days during the first 2 weeks of October, 74 selection routines were observed. Table 9 shows that 68 selections were both observed and expected, producing a prediction rate of 92%. As expected, the errors resulted from the teacher making changes in her selection routines to emphasize training. For example, there were 38 selections of Routine 2, a training strategy, but only four selections of correcting strategies. This finding supports that of Emmer, Evertson, and Anderson (1980), which indicates that effective classroom managers spend more time in the fall instructing students in classroom rules

and procedures, thus clarifying expectations for appropriate student behaviors.

Insert Table 9 about here

Only seven group alerts occurred early in the year, a finding that surprised me. Mrs. Fisher indicated that the group had learned the classroom rules quickly, and attributed this to a new strategy. All the students had been given Good Citizenship badges during the first week of school without having to earn them. (The previous year some had never earned them.) But, they had to turn in their badges if they received a correction (name on the board). This strategy appeared to work in that it tended to put all students on the alert. I noticed that the atmosphere of the classroom was like that of the previous year--relaxed yet business-like.

Though Mrs. Fisher often signaled what behavior was targeted, during the testing of the model I did not always observe the behavior that drew her attention. Each question was resolved by asking the teacher for an explanation during a break in the activities. At other times, questions arose after a student had received a second warning. On six occasions the teacher gave additional warnings to students she later identified as being at a low level of development and as not being disruptive. These selections were then listed as meeting the criteria for Routine #7. Two other selections involved a student who had been identified as a discipline (problem) with poor self control. He received two extra warnings (training strategies), but Mrs. Fisher later revealed that he was

"off-the-board." The two selections were then counted as selections of Routine #11. Though the teacher reported that the groups' behavior was not out of the ordinary, there was some indication that this student was acting with keen awarenss of my presence in the classroom. Twenty-three percent of the 74 selections involved this student, even though he was absent during one of the morning sessions. This is probably due somewhat to his being "off-the-board." Campbell (1982), however, notes that boys tend to become more anti-social in the presence of a stranger, such as an adult investigator. To correct for such a phenomemom, investigators could plan for an "adaptation" period in the classroom and not rely totally on the teacher's assessment.

Ninety percent of the students received one or more selections, with students at a low level of development drawing 2 corrections and 42 training strategies (59% of total selections). Students at the middle level received 14 training strategies and no corrections (19%), while students at the high level drew only 7 training strategies and 2 corrections (12%). However, though the teacher warned the students at a low level of development six times more often, they received the same number of corrections as did the high-level students. This finding confirms Mrs. Fisher's stated policy of refraining from correcting the slower students and allowing them more freedom of movement. Brophy and Rohrkemper (1981) and MacKay and Marland (1978) report somewhat similar teacher behaviors. Teachers, especially primary-level teachers, tend to compensate

for students who try but cannot learn, students who are shy and introverted, and students have special circumstances such as family problems.

Summary and Conclusion

The teachers studied had plans for selecting management strategies during reading seatwork that were highly routine and capable of generating alternative courses of action for solving problems. The models were validated quantitatively on new data producing prediction rates ranging from 92% to 100% and inter-rater reliability rates for ranging from 94% to 98% for two of the models.

The teachers had categories of preferentially-ordered strategies that progressed from mild reminders to more severe corrections for offenses that were repeated or of a very serious nature. Categories of student misbehaviors were ranked-ordered from mild offenses to very serious behaviors, and were logically related to the ordering of the strategies. The routine selection process was, in turn, related to the teachers' goals. Management goals were integrated with instructional goals to provide the essential rationale for promoting student involvement in classroom activitise, minimizing student behaviors that intervered with the teaching-learning process, and teaching culturally appropriate participation structures.

Some researchers believe that learning objectives are seldom the starting point for teachers when they plan (Brophy 1980; Clark & Yinger 1980) and at least one study indicates

that teachers do not spontaneously mention objectives while they plan aloud for an interviewer (Morine-Dershimer 1979). The results of the present study show teachers do not openly discuss management objectives until they trust the experimenter and "why" questions can be asked and answered with openness. Even so, teachers seldom label objectives as such and frequently express objectives in terms of cultural beliefs about child development and learning. However, after the teachers' management objectives were discovered through systematic, indirect questioning techniques, it became clear that the objectives provided the rationale or starting point for even the most routine of the teachers' selections.

One teacher's notions of personality, intentionality, and levels of development indicate that knowledge of child development and skill in applying that knowledge to groups and individuals play a part in the development of an effective management plan. Classroom teachers may be utilizing child development information that is not found in current textbooks used in teacher training. Future research needs to examine such knowledge systems across grade levels and teacher ethnic groups to determine how teachers plan for management and the effects on student achievement..

In conclusion, it would appear that cognitive ethnography provides a method for understanding how teachers practice their craft at least in one narrow aspect, management of students engaged in reading seatwork. It is too early to generalize the method's effectiveness to a broader scope such as the study of

teachers' knowledge systems in classroom management across grade levels but the idea of cognitive research joined with methods of quantification holds promise.

Notes

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References

Blau, Z. A. Black children/white children: Competence, socialization, and social structure. New York: The Free Press, 1981.

Borko, H. An examination of some factors contributing to teachers' preinstructional classroom organization and management decisions. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.

Brophy, J. E. Teachers' cognitive activities and overt behaviors. Paper presented at the Basic Compnents in Education of Mathematics Teachers, Rieste, Federal Republic of Germany, April 21-25, 1980.

Brophy, J. E. Classroom orgarization and management. The Elementary School Journal, 1983, 83, , 265-286.

Brophy, J. E., & Good, T. L. Teacher-student relationships: causes and consequences. New York: Holt, Rinehart, & Winston, 1974.

Brophy, J. E., & Rohrkemper, M. M. The influence of problem ownership on teachers' perceptions of problem students. Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1981.

Campbell, P. How old biases influence new research design. Bulletin of the council on interracial books for children, 1982, 12, 10-13.

Casson, R. W. Language, culture, and cognition: anthropological perspectives. New York: Macmillan, 1981.

Cazden, C. B. Classroom discourse. In M. C. Wittock (Ed.), Handbook of research on teaching, (2nd Ed.) New York: Macmillan, in press.

Clark, C., & Yinger, R. J. The hidden world of teaching: implications of research on teacher planning. Paper presented at the annual meeting of the American Education Research Association, 1980.

Cone, R. Teachers' decisions in managing student behavior: a laboratory

simulation of interactive decision making by teachers. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.

Emmer, E. T. & Evertson, C. M. Synthesis of research on classroom management. Educational Leadership, 1981, 342-347.

Emmer, E. T., Evertson, C. M. & Anderson, L. Effective management at the beginning of the school year. Elementary School Journal, 1980, 80, 219-231.

Erickson, F. D., Cazden, D. B., Carrasco, R. L., & Maldonado-Guzman, A. A. Social and cultural organization of interaction in classrooms of bilingual children. (Final report to the National Institute of Education, NIE G-78-00-99). Washington, D. C.: National Institute of Education, September, 1983.

Erickson, F. D., & Mohatt, G. Cultural organization of participation structures in two classrooms of Indian students. In G. Spindler (Ed.), Doing the ethnography of schooling: educational anthropology in action. New York: Holt, Rinehart & Winston, 1982.

Evertson, C., & Emmer, E. T. Preventive classroom management. In D. L. Duke (Ed.), Helping teachers manage classrooms. Alexandria, Va.: Association for Supervision and Curriculum Development, 1982.

Freiberg, H. J. Consistency: the key to classroom management. Journal of Education for Teaching, 1983, 9, 1-15.

Geoghegan, W. Decision-making and residence on Tagtabon Island (Language Behavior Research Laboratory, working paper #17). University of California, Berkeley, 1969.

Gladwin, D. J. A view of plan puebla: an application of hierarchical decision models. American Journal of Agricultural Economics, 1976, 20, 881-887.

Heath, S. B. Questioning at home and at school: a comparative study. In G. Spindler (Ed.), Doing the ethnography of schooling: educational anthropology in action. New York: Holt, Rinehart & Winston, 1982.

Hieronymus, A. N., Hoover, H. D., & Lynquist, E. T. Iowa Test of Basic Skills. Chicago: Riverside Publishing Co., 1978.

Kounin, J. Discipline and group management in classrooms. New York: Holt, Rinehart & Winston, 1970.

LeCompte, M. D. & Goetz, J. P. Problems of reliability and validity in ethnographic research. Review of Educational Research, 1982, 52, 31-60.

MacKay, D. A. & Marland, P. Thought processes of teachers. Paper presented at the annual meeting of the American Educational Research Association, Toronto 1978.

Morine-Dershimer, G. Teacher plan and classroom reality: the south bay study, Part IV (Research Series No. 60). Institute for Research on Teaching, Michigan State University, 1979.

Philips, S. Participant structures and communicative competence: warm springs children in community and classroom. In C. Cazden, D. Hymes, and V. John, (Eds.), Functions of Lanaguage in the Classroom. New York: Teachers College Press, 1972.

Piaget, J. The language and thought of the child. New York: Harcourt & Brace, 1926.

Ramirez, M., & Castaneda, A. Cultural democracy, bicognitive development, and education. New York: Academic Press, 1974.

Randall, R. A. Change and variation in Samal fishing; Making plans to 'make a living' in the Southern Philippines. Ph.D. dissertation, University of California, Berkeley (University Microfilms No. 77-31, 511), 1977.

Randall, R. A. Plans and planning in cross-cultural settings. In S. Freedman, R. Cocking, & E. Scholnick (Eds.), Blueprints for action: the developmental psychology of planning. Cambridge, Mass.: Cambridge University Press, in press.

Shank, R. & Abelson, R. Scripts, plans, goals, and understanding: an inquiry into human knowledge structures. Hillsdale, N. J.: Lawrence Erlbaum Asso., 1977.

Tyler, S. A. (Ed.) Cognitive anthropology. New York: Holt, Rinehart & Winston, 1969.

Ward, M. C. Them children: a study of language learning. New York: Holt, Rinehart, & Winston, 1971.

Weber, W. A. Classroom management. In J. M. Cooper (Ed.), Classroom teaching skills. Lexington, Mass.: Heath, 1982.

Young, J. A. A model of illness treatment decisions in a Tarascan town. American Ethnologist, 1980, 7, 106-139.

Table 1. Composition of Reading Groups by Ethnicity

	Groups	Black	Hisp.	Anglo	Asian	E. Ind.	Totals
	I	0	4	4	0	0	8
Mrs. Ramirez	II	0	4	2	1	0	7
	III	0	8	4	0	0	12
		0	16	10	1	0	27

	Groups	Black	Hisp.	Anglo	Asian	E. Ind.	Totals
	I	5	0	0	0	0	5
Mrs. Farris	II	6	0	0	1	0	7
	III	8	0	0	0	0	8
		20	0	0	0		20

	Groups	Black	Hisp.	Anglo	Asian	E. Ind.	Totals
	I	1	1	10	2	1	15
Mrs. Fisher	II	1	0	6	0	0	7
	III	2	2	2	0	0	6
		4	3	18	2	1	28

Table 2. Teachers' Groupings of Misbehaviors Ranked for Seriousness

Mrs. Ramirez

I. Worst

- A. Fights
- B. Bullies
- C. Takes another's belongings

II. (no name given)

- A. Defies the teacher
- B. Cheats
- C. Talks loud
- D. Gets up and goes to another's desk
- E. Wastes time
- F. Fails to respond to teacher directive

III. (no name given)

- A. Tattles
- B. Goes to teacher with unnecessary question
- C. Has no supplies
- D. Does not listen

More distractive ↕ Less distractive

Mrs. Farris

I. Breaking class rules

- A. Worst
  1. Fights
  2. Tells a lie on someone
  3. Acts defiant
  4. Tattles
- B. "I don't ever allow these"
  1. Talks
  2. Makes noise, such as rolling a pencil, flopping a book.
  3. Clowns, such as turning around, laughing.
  4. Gets out of desk unnecessarily
- C. Less serious
  1. Dirties up the room
  2. Does not sit up straight

Disturbs teacher ↕

II. Not doing reading assignment right

1. Does not finish assignment
2. Does not follow directions
3. Does not pay attention to directions
4. Stares into space
5. Looks on someone's work
6. Moves too slowly following teacher directive
7. Reads audibly and should be reading silently

Causes low grades ↕

Mrs. Fisher

I. "Not tolerated ever"

- A. Steals major item, such as $5.00
- B. Physically hurst someone intentionally
- C. Destroys property intentionally
- D. Uses bad or foul language intentionally

II. Very serious

- A. Argues with the teacher
- B. Fusses loudly with another student
- C. Acts boisterously, such as blurts out
- D. Tattles to manipulate the teacher
- E. Tattles to hurt someone
- F. Fails to respond to a group directive
- G. Steals a minor item, such as a pencil

III. Serious to minor

- A. Goes into an out-of-bounds situation such as joining another reading group watching a film strip
- B. Gets noisy during a tutoring session
- C. Sneaks
- D. Talks non-school talk, but not loud
- E. Wanders around the room
- F. Is off task but not disrupting, such as daydreaming

More disruptive, More intentional ↕ Less disruptive, Less intentional

Table 3. Preferentially-Ordered Teacher Strategies

Mrs. Ramirez

I. Monitor

II. Select group alert for group situations

III. Select mild warning (mild tone)

- A. Hint, or "I hear talking. You must be finished."
- B. Call name, and tell them to stop, or Identify tasks, or Assist with supplies

IV. Select firm warning

- A. Use III A and B above, but with firm tone or sarcasm

V. Select stronger strategies

- A. Take out in the hall for a private talk, or "Get down eye to eye."
- B. Threaten, or "I am going to call your father."
- C. Isolate, or
- D. Send them to another room

Mrs. Farris

I. Watch students

II. Warn

- A. Use group alert "Little folk, you don't need to talk to pass in paper."

If individual:

- B. Determine who it is, then Shake head, or Tell them to stop, or Identify tasks, or Assist with supplies, or "play with them," if they are not doing the assignment right "I am going to choke you if you don't do that right."

III. Correct

- A. Tell student to do something, or "Go stand in the corner."
- B. Threaten to spank, or "If you don't shut your mouth, you are going to be sorry."
- C. Spank, or "Go get the paddle (Flaming Star)"
- D. Raise voice and repeat warning

Mrs. Fisher

I. Training strategies

- A. Monitor
- B. Omit taking action
- C. Cause student to correct own behavior without singling out
  1. Catch eye of student, or
  2. Give a group alert, or
  3. Make a movement to catch the the student's attention
- D. Cause student to correct behavb behavior by singling out
  1. Call name, then identify, or
  2. Tell to stop, or
  3. Redirect, or
  4. Counsel

II. Correcting Strategies

- A. First sign-in: B in conduct for that day
- B. Second time: C in conduct. May take time-out by watching three-minute sand timer
- C. Third time: D in conduct and student writes letter home to parents
- D. Fourth sign-in: F in conduct for that day

Table 4. Mrs. Ramirez' Selection Routines during Reading

1. If there is a group problem, such as the whole class getting noisy, select a group alert.

2. If the student has a question about seatwork or is in need of school supplies, see that the student is assisted.

3. If the student defies the teacher, such as answering back or staring with a defiant expression, challenge the student immediately. If behavior continues, select stronger strategies.

4. If a student tattles, determine if it is a legitimate complaint. If it is not, the tattler is warned. If it is a legitimate complaint, the student who has been reported (offender) is warned, unless thje behavior concerns worst behavior.

5. If it is worst behavior, such as fighting, bullying, stealing, determine if anyone is hurt. If hurt, send to office; determine offender(s), and give offenders a firm warning. If behavior continues, select stronger strategies.

Routines for distracting behaviors other than tattling, such as loud talking, out-of-seat, etc.:

6. If it is distracting, and the student does not do it all the time, select a mild warning.

7. If it is distracting, and the student does it all the time, select a firm warning.

8. If a student who has received firm warnings for several days continues distracting behavior, select stronger strategies.

Table 5. Mrs. Farris' Selection Routines during Reading

1. If there is a group problem, select a group alert.

2. For not allowed behaviors, warn student once or twice.

3. For not allowed behaviors, if student has been warned once or twice, correct or threaten to spank.

4. For not allowed behaviors, if student has been corrected once, spank after reading, unless the teacher does not feel like it (high blood pressure) or the weather is warm, in which case repeat warning in rougher tone of voice.

5. For not doing the assignment right, warn or "play with" the student.

6. For a school supply problem, see that student is assisted.

7. For a messy room or desk, see that it is cleaned up.

8. For poor posture, see that it is corrected.

9. For fighting or telling a lie to get someone in trouble, spank.

10. If student is moving too slowly, tell to hurry up.

Table 6. Mrs. Fisher's Selection Routines during Reading

1. If a group problem exists, continue to select a group alert until the group gets on task.

For other behaviors, not including tattling:

2. If a student is off task and has not received a few warnings, select a training strategy.

3. If a student has had a few warnings and is acting sneaky, select a correcting strategy.

4. If the student has had a few warnings, is being loud and (potentially) disruptive, select a correcting strategy.

5. If the student has a few warnings, has a shy personality, and is being loud for a change, select a training strategy, which may be to omit taking any action.

6. If the student has had a few warnings, is off task but is not being sneaky or loud, and is at a high or middle level of development, select a correcting strategy.

7. If the student has had a few warnings, is off task, but is not being sneaky or loud, and is at a low level of development, continue to select training strategies until the student makes no effort to change the behavior. In that case, select a correcting strategy.

For tattling:

8. If the student tattles out of distress, such as complaining about another student, give a brief, mild admonition, unless the student is reporting stealing, cheating, fighting, or illness. In those cases, look into it further, but do not take one student's word against another.

9. If the student tattles to hurt another student, or to manipulate the teacher, give a curt admonition, glare with the eyes, and perhaps use a hand motion to make the student go away.

10. If the student answers back, raise tone of voice, and increase curtness. If student persists, select correcting strategy.

For bad habits and arguing with the teacher:

11. If the student needs to correct a bad habit, take note of all targeted behaviors.

12. If student argues with the teacher, select correcting strategy.

Table 7. Observed Selections of Strategy Routines in Farris Classroom during one reading period in May

		Strategies Observed										
		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	Total Expected
1.	Group alert	1										1
2.	Warn if interfering		4									4
3.	Correct or threaten			0								0
4.	If corrected, spank				0							0
5.	Warn or "play" with if not doing assignment right					3						3
6.	No school supplies						0					0
7.	Paper on the floor							0				0
8.	Poor posture								1			1
9.	Fighting									0		0
10.	Moving too slowly (behavior not a routine)										2	2
	Total Observed	1	4	0	0	3	0	0	1	0	2	11

Prediction rate of 100%
Inter-rater reliability of 94%
N=11

Table 8. Observed Selections of Strategy Routines in Ramirez Classroom during One Reading Session in May

	Strategies Observed										Total Expected
	#1	#2a	#2b	#3	#4	#5	#6	#7	#8		
1. Group alert	2										2
2 a. Student asks or tells teacher some-something		17									17
b. Student has supply problem			5								5
3. Defies teacher				0							0
4. Tattler/offender warner					2						2
5. First warning for worst behavior						0					0
6. Distracting, does not do it all the time							11				11
7. Distracting, does it all the time								11			11
8. Stronger strategies			*1						0		1
Not on the model										**1	1
Total observed	2	17	6	0	2	0	11	11	0	1	50

*Expected selection of #2b, but not observed.
**Selection not on the model
Prediction rate of 96%
Inter-rater reliability of 98%
N=50

Table 9. Observed Selections of Strategy Routines

in Fisher Classroom during Four Reading Sessions in October

		Strategies Observed											
		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	Total Expected
1.	Group alert	7											7
2.	A few warnings		32										32
3.	Sneakiness			0									0
4.	Boisterous and loud		*5		2								7
5.	Shy and loud					0							0
6.	High or middle level of dev.		*1				1						2
7.	Low level of dev.&off task							6					6
8.	Distress tattle								3				3
9.	Tattle to hurt									0			0
10.	Persists in tattle										0		0
11.	Off the board											17	17
	Total observed	7	38	0	2	0	1	6	3	0	0	17	74

*Selections expected but not observed
Prediction rate of 92%
N=74

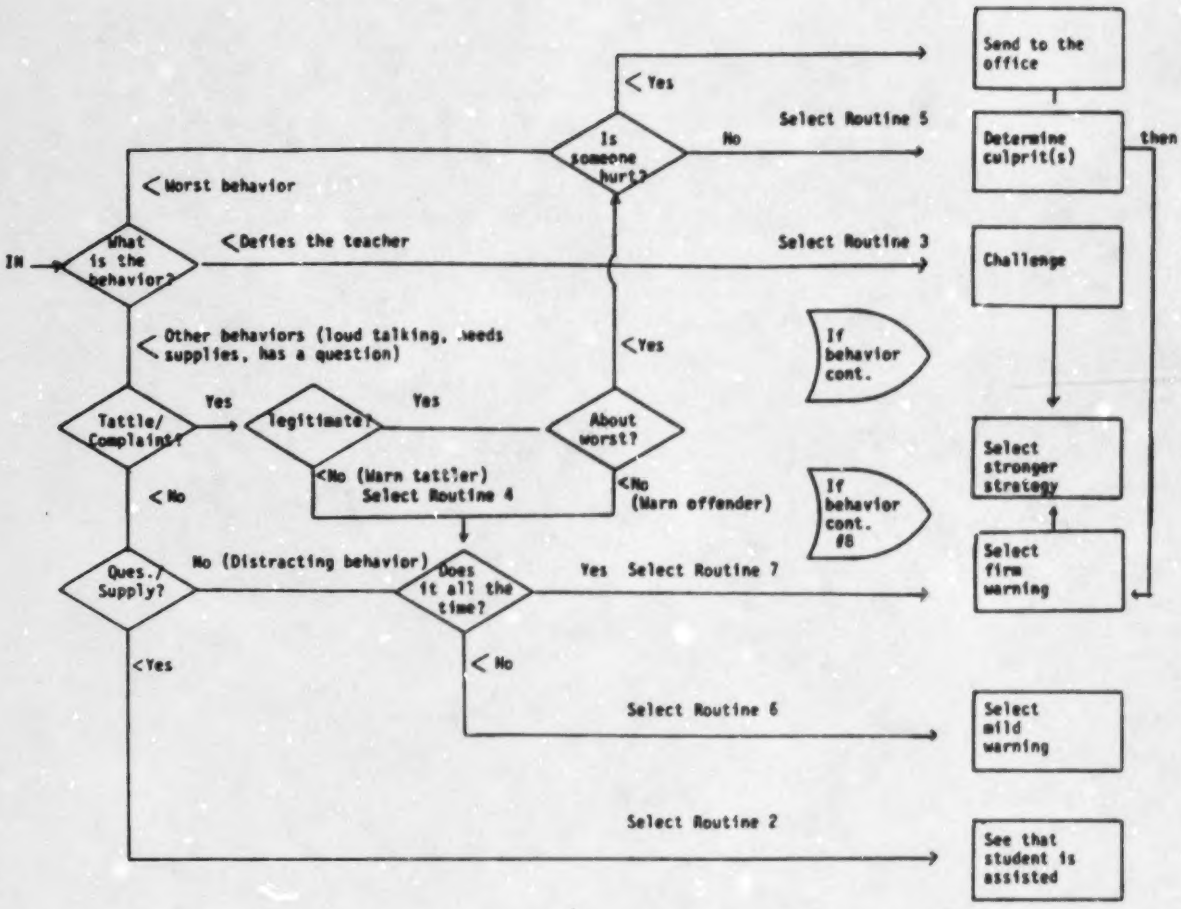

Fig. 1 Information Processing Model of Mrs. Ramirez' Selections of Strategy Routines during Reading

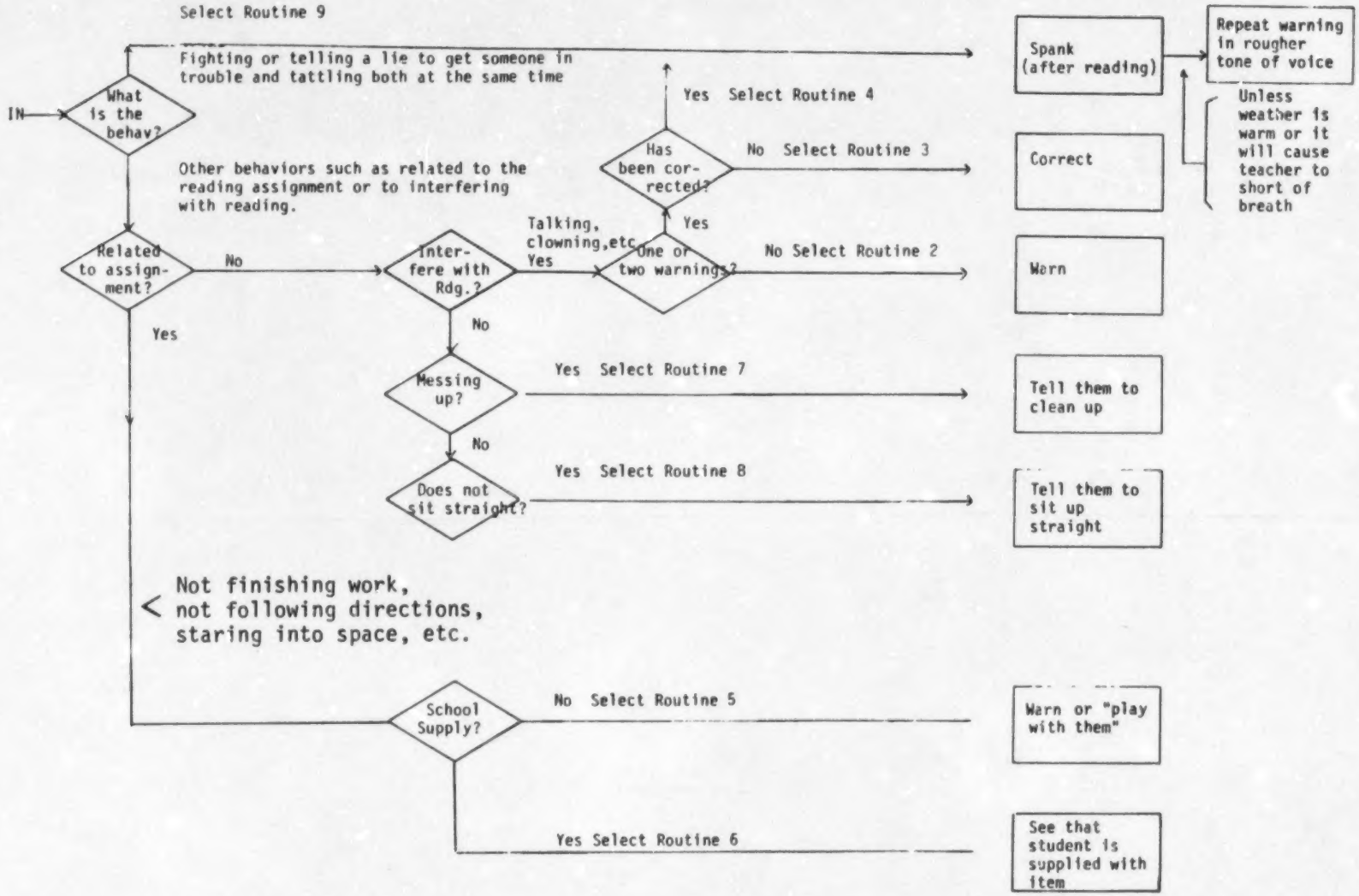
Select Routine 9
Fighting or telling a lie to get someone in trouble and tattling both at the same time
IN
What is the behav?
Other behaviors such as related to the reading assignment or to interfering with reading.
Related to assign-ment?
No
Yes
Inter-fere with Rdg.?
Talking, clowning, etc.
Yes
One or two warnings?
Yes Select Routine 4
Has been cor-rected?
No Select Routine 3
No Select Routine 2
Spank (after reading)
Repeat warning in rougher tone of voice
Unless weather is warm or it will cause teacher to short of breath
Correct
Warn
No
Messing up?
Yes Select Routine 7
Tell them to clean up
No
Does not sit straight?
Yes Select Routine 8
Tell them to sit up straight
Not finishing work, not following directions, staring into space, etc.
School Supply?
No Select Routine 5
Warn or "play with them"
Yes Select Routine 6
See that student is supplied with item

Fig. 2. Information Processing Model of Mrs. Farris' Selection of Strategy Routines during Reading